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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,906	01/30/2004	Seung-Sik Yang	1793.1121	5692
21171	7590	05/06/2010		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER RILEY, MARCUS T	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 05/06/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/766,906

Applicant(s)

YANG, SEUNG-SIK

Examiner

MARCUS T. RILEY

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2010.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/GA-08)
Paper No(s)/Mail Date 08/05/2005; 01/27/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This office action is responsive to applicant's remarks received on January 19, 2010. **Claims 1-20** remain pending.

Response to Arguments

2. Applicant's arguments with respect to amended claims 1-20, filed on January 19, 2010 have been fully considered but they are not persuasive.

A: Applicant's Remarks

For Applicant's remarks see "*Applicant Arguments/Remarks Made in an Amendment*" filed January 19, 2010.

A: Examiner's Response

Applicant argues that the cited reference does not disclose determining whether an error has occurred while the intermediate data is converted into the printing data and in response to determining that an error has occurred, converting the intermediate data into image type data and converting the image type data into the printing data.

Examiner understands Applicant Arguments but respectfully disagree. Sugahara '939 either alone or in combination with Mori '882 teaches, discloses or suggest the Applicant's claimed invention at Fig. 21 and Page 6, paragraphs 0115-0116. For example, when print contents include an error, as shown in the block diagram in Fig. 21, the intermediate data spooled

in the spooler 27 is editable by the intermediate data editor 28. When the printed intermediate data has an error, the intermediate data is editable and corrected, so that the intermediate data can be printed. Moreover, Page 3, Paragraph 0045 shows where the server 20 includes a spooler 27 for spooling intermediate data which has not yet been converted into print data and an intermediate data editor 28. When the print data has an error at which the print data is generated, the intermediate data spooled in the spooler 27 on the server 20 is edited to correct the error of the intermediate data. Then, it is converted into intermediate data to be printed. Fig. 4 is an example of a diagram of a screen showing a print image of the intermediate data in Fig. 3. Thus, Sugahara '939 either alone or in combination with Mori '882 teaches, discloses or suggest the Applicant's claimed invention. As a result, Applicant's application is not in condition for allowance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1-4 and 12-14** are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101" – publicly available at USPTO.GOV, "memorandum to

examining corp”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. In order for a process to be “tied” to another statutory category, the structure of another statutory category should be positively recited in a step or steps significant to the basic inventive concept, and NOT just in association with statements of intended use or purpose, insignificant pre or post solution activity, or implicitly.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-3 & 5-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara (US 2003/0020939 A1, hereinafter Sugahara ‘939) in combination with Mori et al. (US 6,433,882 hereinafter, Mori ‘882).

Regarding claim 1; Sugahara ‘939 discloses a printing method for recovering an error (i.e. A print system is provided which can perform correction when the printed data includes an error. Page 1, Paragraph 0008) comprising:

storing intermediate data corresponding to a document to be printed (i.e. The intermediate data is spooled in the storage device by the spooler, the intermediate data of the print data being spooled even after the print data is transmitted. Page 1, Paragraph 0010);

converting the intermediate data into printing data (i.e. The intermediate data is converted into the

print data by the print data converter. Page 6, paragraphs 0009);

determining whether an error has occurred while the intermediate data is converted into the printing data (Fig. 21, Intermediate Data Editor 28, i.e. when print contents include an error, as shown in the block diagram in Fig. 21, the intermediate data spooled in the spooler 27 is editable by the intermediate data editor 28. When the printed intermediate data has an error, the intermediate data is editable and corrected, so that the intermediate data can be printed. Page 6, paragraphs 0115-0116);

and in response to determining that an error has occurred, converting the intermediate data into image type data and converting the image type data into the printing data (i.e. Fig. 4 is an example of a diagram of a screen showing a print image of the intermediate data in Fig. 3, Page 2, Paragraph 0022).

wherein the document is printed using the printing data (Fig. 4, #40, Page 3, Paragraph 0061).

Sugahara '939 does not expressly disclose where the intermediate data being Graphic Device Interface (GDI) function in a single enhancement meta file (EMF).

Mori '882 discloses where the intermediate data being Graphic Device Interface (GDI) function in a single enhancement meta file (EMF) (Fig. 2b, #'s 13 & 14, i.e. The print data generating unit 14 produces intermediate files called "Enhanced Meta Files" (EMFs). The print data generation unit 14 is constructed from an application 11, a printer driver 12, and a Graphical Device Interface (GDI) 13. Column 6, lines 14-28).

Sugahara '939 and Mori '882 are combinable because they are from same field of endeavor of network printer systems (Mori '882 at Abstract).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the printer system as taught by Sugahara '939 by adding where the intermediate data being Graphic Device Interface (GDI) function in a single enhancement meta file (EMF) as taught by Mori '882. The motivation for doing so would have been because it is advantageous to

improve a printer control system that enables the personal computer to control special print jobs using simple processes. Therefore, it would have been obvious to combine Sugahara '939 with Mori '882 to obtain the invention as specified in claim 1.

Regarding claim 2; Sugahara '939 discloses in response to determining that an error has not occurred or after determining that an error has occurred (Fig. 21, #'s 27 & 28, i.e. when print contents include an error, as shown in the block diagram in Fig. 21, the intermediate data spooled in the spooler 27 is editable by the intermediate data editor 28. When the printed intermediate data has an error, the intermediate data is editable and corrected, so that the intermediate data can be printed. Page 6, paragraphs 0115-0116);

and the intermediate data has been converted into image type data and the image type data has been converted into the printing data (i.e. Fig. 4 is an example of a diagram of a screen showing a print image of the intermediate data in Fig. 3. Page 2, Paragraph 0022).).

determining whether the intermediate data has been completely converted into the printing data; and in response to determining that the intermediate data has not been completely converted into the printing data, going back to converting the intermediate data into the printing data (The server 20 includes a spooler 27 for spooling intermediate data which has not yet been converted into print data and an intermediate data editor 28. When the print data has an error at which the print data is generated, the intermediate data spooled in the spooler 27 on the server 20 is edited to correct the error of the intermediate data. Then, it is converted into intermediate data to be printed. Page 3, Paragraph 0045).

Regarding claim 3; Sugahara '939 discloses where in response to determining that an error has occurred, loading the stored intermediate data (Fig. 21, #'s 27 & 28, i.e. when print contents include an error, as shown in the block diagram in Fig. 21, the intermediate data spooled in the spooler 27 is editable by the intermediate data editor 28. Page 6, paragraphs 0115-0116);

converting the loaded intermediate data into the image type data; (The intermediate data is converted into the print data by the print data converter. The print data is converted into a bitmap image by the drawing controller. Page 1, Paragraph 0010);

and converting the image type data into the printing data (The printer 30 includes a drawing controller 32 converting the PDL data output from the server 20 into a bitmap image, and a printer engine 34 performing printing on the basis of the converted bitmap image. Page 6, Paragraph 0044);

Regarding claims 5, 9, 12, 15 & 19; Claims 5, 9, 12, 15 & 19 contains substantially the same subject matter as claim 1. Therefore, claims 5, 9, 12, 15 & 19 are rejected on the same grounds as claim 1. However, claims 5, 15 & 19 denotes the apparatus. Sugahara '939 discloses a printing apparatus (Fig. 1, Printer 30), a storage unit (Fig. 1, RAM #21 and ROM #22a), a printer driver (Fig. 1, Driver 14) and the control unit (Fig. 1, Drawing Controller 32). In addition, claim 9 discloses a computer-readable recording medium. Sugahara '939 discloses a computer-readable recording medium storing a computer program (Fig. 1, Recording Media Drive #25).

Regarding claim 6; Sugahara '939 discloses where the control unit inspects whether the intermediate data has been completely converted into the printing data by the printer driver, and outputs a result of the inspection as a conversion signal to the printer driver, and the printer driver converts the intermediate data into the printing data in response to the conversion signal (The server 20 includes a spooler 27 for spooling intermediate data which has not yet been converted into print data and an intermediate data editor 28. When the print data has an error at which the print data is generated, the intermediate data spooled in the spooler 27 on the server 20 is edited to correct the error of the intermediate data. Then, it is converted into intermediate data to be printed. Page 3, Paragraph 0045).

Regarding claim 7; Sugahara '939 discloses where the control unit comprises: an error inspector (Fig. 1, Intermediate Data Editor 28) which inspects whether an error has occurred while the intermediate data is converted into the printing data and outputs a result of the inspection as the control signal (Fig. 21, Intermediate Data Editor 28, i.e. when print contents include an error, as shown in the block diagram in Fig. 21, the intermediate data spooled in the spooler 27 is editable by the intermediate data editor 28. When the printed intermediate data has an error, the intermediate data is editable and corrected, so that the intermediate data can be printed. Page 6, paragraphs 0115-0116);

and a data loader (Fig. 18, #154), which in response to the control signal, loads the intermediate data from the storage unit and outputs the loaded intermediate data to the printer driver (The intermediate data is output from the print processor 29 to the spooler 27. Then, in the spooler 27, the spooled PDL data is replaced with intermediate data. At this time, a code "printed" is added to the intermediate data used in the replacement. On the other hand, in the above procedure 161, when the input data to the print processor 29 is not PDL data, the input data is converted into PDL data. Then, the PDL data is output to the transmitting device 26b, and is printed by the printer 30. Page 6, Paragraphs 0012-0014)

Regarding claim 8; Sugahara '939 discloses a spooler (Fig. 1, Spooler 27), loaded with intermediate data from the storage unit and outputting the loaded intermediate data to the printer driver, (i.e. Fig. 5 shows a Spool Data List consisting of intermediate data to be edited from the storage unit. Page 3, Paragraph 0062);

wherein the printer driver converts the intermediate data received from the spooler into the printing data (i.e. The printer driver 14 performs the data conversion printing the document or the like with the printer 30. The intermediate data is converted into the print data by the print data converter. Page 1, Paragraph 0010 and Page 2, Paragraph 0044);

Regarding claim 10 & 13; Claims 10 & 13 contains substantially the same subject matter as claim 2. Therefore, claims 10 & 13 are rejected on the same grounds as claim 2.

Regarding claim 11; Claim 11 contains substantially the same subject matter as claim 3. Therefore, claim 11 is rejected on the same grounds as claim 3.

Regarding claim 14; Claim 14 contains substantially the same subject matter as claim 4. Therefore, claim 14 is rejected on the same grounds as claim 4.

Regarding claim 16; Claim 16 contains substantially the same subject matter as claim 6. Therefore, claim 16 is rejected on the same grounds as claim 6.

Regarding claim 17; Claim 17 contains substantially the same subject matter as claim 7. Therefore, claim 17 is rejected on the same grounds as claim 7.

Regarding claim 18; Claim 18 contains substantially the same subject matter as claim 8. Therefore, claim 18 is rejected on the same grounds as claim 8.

Regarding claim 20; Claim 20 contains substantially the same subject matter as claim 6. Therefore, claim 20 is rejected on the same grounds as claim 6.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara '939 in combination with Mori '882 as applied to claim 1 above, and further in view of Tattari (US 6,145,095 hereinafter, Tattari '095).

Regarding claim 4; Sugahara '939 as modified does not expressly disclose where the error is a general protection fault type error.

Tattari '095 discloses where the error is a general protection fault type error (The operating system may give a short error message, such as "General Protection Fault". Column 1, lines 20-22).

Sugahara '939 and Tattari '095 are combinable because they are from same field of endeavor of network systems (Tattari '095 at Abstract).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the network system as taught by Sugahara '939 by adding where the error is a general protection fault type error as taught by Tattari '095. The motivation for doing so would have been because it is advantageous to improve a network system by providing a means to inform a user of a current error or problem. Therefore, it would have been obvious to combine Sugahara '939 with Tattari '095 to obtain the invention as specified in claim 1.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCUS T. RILEY whose telephone number is (571)270-1581. The examiner can normally be reached on Monday - Friday, 7:30-5:00, est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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